

(757) 322-4776

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1822:JFH:srw

Virginia Department of Environmental Quality
Attn: Mr. Russ McAvoy
629 East Main Street
Richmond, Virginia 23219

Re: Naval Air Station (NAS) Oceana, SWMU 15, EPA ID
#VA2170024606

Dear Mr. McAvoy:

In response to your 5 February 1998 letter requesting RCRA related information concerning the remedial action of petroleum contaminated soils using on-site, ex-situ bioremediation at SWMU 15, LANTDIV offers the following information to question #1:

- Waste Stream Description: The soil undergoing biotreatment was excavated from SWMU 15, Abandoned Tank Farm. The tank farm was used from the mid-1950s to the mid-1970s. The fuels stored there consisted of JP-3, aviation gas and possibly kerosene.
- Chemical Composition: From discrete grab samples taken in-situ prior to treatment revealed the following contaminants: TPH and BTEX.
- Mass Generation Rate: One time excavation and treatment of approximately 19,000 cubic yards from a 1.45-acre area.
- Point of Origin: All contaminated soil was removed from SWMU 15.
- Generation Process: Continual removal of contaminated soil until limits of excavation are achieved. Soil will be treated as a single batch.
- Intermediate Storage/Treatment: The soil is treated in a single batch, therefore no intermediate storage or treatment is required for this project. Well points were used in-situ to draw down the water table prior to excavation to ensure the soil would not requiring drying before treatment.

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- Chronology of Waste Stream: Site is characterized to determine the limits of the excavation and well points are driven to draw down the water table. Soil is excavated and placed on the biotreatment pad (concrete/asphalt with berms). Soil is augmented with Biosolids Enhanced Remediation (BER), a patented blend of bacteria and nutrients. After a treatment cycle, samples are taken from the pile to determine if the predetermined remediation level has been achieved. If so, the soil will be returned to the site. If not, the soil will undergo another treatment cycle.

In response to question #2; during initial characterization of the site, the soils were sampled for total petroleum hydrocarbons (TPH), lead, BTEX, as well as several polycyclic aromatic hydrocarbons (PAH's). These were discrete grab samples used to determine the limits of excavation. Of these constituents, the only compounds of concern under RCRA Subtitle C are lead and benzene. The maximum detects from the discrete locations ranged from:

CONSTITUENT	RANGE of DETECTS	AVERAGE
lead	ND - 0.26 ppm	< IDL
benzene	ND - 21.8 ppm	3 ppm

Since TCLP samples were not taken, using a conservative approach and dividing the total concentration by 20% (based on the TCLP dilution) and assuming 100% leaching, the benzene and lead concentrations would not have been expected to exceed the regulatory limit. To confirm this, the Navy could take several samples of the pile and analyze for TCLP. This, however, should not be necessary. The contamination in this soil would not meet the definition of a listed waste.

Question #3 is not applicable since the soil is not a hazardous waste.

In response to question #4: As you are aware, Oceana is a large quantity generator and a permitted TSD facility. EPA is performing this cleanup operation under a RCRA 3008(h) Corrective Action Order administered by EPA.

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I hope this letter will provide the essential details you have requested. In the meantime, if you need additional information or I can be of further assistance, please do not hesitate to call.

Sincerely,

J. F. HARRIS, P.E.
Remedial Project Manager
Installation Restoration Section
(North)
Environmental Programs Branch
Environmental Division
By direction of the Commander

Enclosure

Copy to:

Mr. Will Bullard (NAS Oceana)

Mr. Jack Robinson (CH2MHill)

Mr. Gleness Knauer (VDEQ)

Blind copy to:

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